

**REMARKS**

In the Office Action, the Examiner allowed claims 45-50, objected to claims 3-6, 9-13, 16-18, 21-25, 28, 29, 31, 34-37, 39, and 42-44, and rejected claims 1, 2, 7, 8, 14, 15, 19, 20, 26, 27, 30, 32, 33, 38, 40 and 41. However, the Examiner also indicated that claims 3-6, 9-13, 16-18, 21-25, 28, 29, 31, 34-37, 39, and 42-44 would be allowable if rewritten in independent form. By the present Response, the Applicants hereby amend independent claims 1, 14, 26, 30, 38 and dependent claims 22, 23, and 24, cancel dependent claims 9, 25, and 37, and add new dependent claims 51 and 52. For example, the amended independent claim 1 incorporates the allowable dependent claim 9, the amended independent claim 14 incorporates allowable subject matter from dependent claim 25, the amended independent claim 26 incorporates allowable subject matter from dependent claim 28, and the amended independent claim 30 incorporates the allowable dependent claim 37. The foregoing amendments and new claims do not add any new matter to the present application. All pending claims are believed to be clearly allowable. In view of the foregoing amendments and the following remarks, the Applicants respectfully request reconsideration and allowance of all pending claims.

**Rejections Under 35 U.S.C. § 102(b)**

Independent claims 1, 14, 26, 30, 38 and dependent claims 2, 7, 15, 19, 27, 32 and 40 are rejected under 35 U.S.C. § 102(b) as being anticipated by Burgess et al. (U.S. Patent 5,044,823, hereinafter “Burgess”). Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. Applicants respectfully assert that the embodiments of the present invention, as recited in independent claims 1, 14, 26, 30, 38 and dependent claims 2, 7, 15, 19, 27, 32 and 40, are patentable over Burgess.

**Independent Claim 1**

Independent claim 1 has been amended in this response to incorporate the element of the "flexible seal that comprises a metal" as recited in allowable dependent claim 9.

***Burgess fails to teach a flexible seal that comprises a metal.***

By the Examiner's own allowance of claim 9, it is clear that Burgess does not teach a flexible seal that comprises a metal. In view of this deficiency among others, Burgess cannot support a *prima facie* case of anticipation of independent claim 1. Thus, the Applicants respectfully request withdrawal of the rejection of claim 1 and its dependent claims under 35 U.S.C 102(b).

**Independent Claim 14**

Independent claim 14 has been amended in this response to incorporate the element of "'the second seal mechanism comprises a C-shaped structure, or a U-shaped structure, or a W-shaped structure, or any combination thereof'" as at least partially recited in the allowable dependent claim 25.

***Burgess fails to teach a second seal mechanism that comprises a C-shaped structure, or a U-shaped structure, or a W-shaped structure, or any combination thereof.***

By the Examiner's own allowance of claim 25, it is suggested that Burgess does not teach a second seal mechanism that comprises a C-shaped structure, or a U-shaped structure, or a W-shaped structure, or any combination thereof. In view of this deficiency among others, Burgess cannot support a *prima facie* case of anticipation of independent claim 14. Thus, the Applicants respectfully request withdrawal of the rejection of claim 14 and its dependent claims under 35 U.S.C 102(b).

**Independent Claim 26**

Independent claim 26 has been amended in this response to incorporate the element of “the second medium is relatively cooler than the first medium” as at least partially recited in the allowable dependent claim 28.

***Burgess fails to teach the second medium is relatively cooler than the first medium.***

By the Examiner’s own allowance of claim 28, it is suggested that Burgess does not teach a second medium that is relatively cooler than the first medium. In view of this deficiency among others, Burgess cannot support a *prima facie* case of anticipation of independent claim 26. Thus, the Applicants respectfully request withdrawal of the rejection of claim 26 and its dependent claims under 35 U.S.C 102(b).

**Independent Claim 30**

Independent claim 30 has been amended in this response to incorporate the element of “preloading the second seal by the second medium” as recited in the allowable dependent claim 37.

***Burgess fails to teach preloading the second seal by the second medium.***

By the Examiner’s own allowance of claim 37, it is clear that Burgess does not teach preloading the second seal by the second medium. In view of this deficiency among others, Burgess cannot support a *prima facie* case of anticipation of independent claim 30. Thus, the Applicants respectfully request withdrawal of the rejection of claim 30 and its dependent claims under 35 U.S.C 102(b).

**Independent Claim 38**

Independent claim 38 has been amended in this response to incorporate the element of “the first seal, or the second seal, or the first seal and the second seal is not rubber”.

***Burgess fails to teach that the first seal, or the second seal, or the first seal and the second seal is not rubber.***

In sharp contrast to claim 38, Burgess teaches only a rubber material for the sealing members 8. Referring to the passage at column 2, lines 29 to 31 of Burgess, it reads:

As materials for the sealing member, the natural and synthetic rubbers used for comparable previously proposed sealing members are generally satisfactory.

Burgess, column 2, lines 29 to 31 (emphasis added). Thus, Burgess is directed to sealing members 8 made of rubber, rather than other types of material. Referring to the figure, the sealing members 8 of Burgess clearly rely on the rubber material to operate in response to the media pressure. Because Burgess does not teach that the sealing members 8 are not rubber, Burgess cannot support a *prima facie* case of anticipation of independent claim 38. Thus, the Applicants respectfully request withdrawal of the rejection of claim 38 and its dependent claims under 35 U.S.C 102(b).

In view of the foregoing distinctions among others, a *prima facie* case of anticipation of independent claims 1, 14, 26, 30 and 38 and their respective dependent claims cannot be supported by Burgess. Therefore, Applicants respectfully request that the Examiner withdraw the rejections of independent claims 1, 14, 26, 30 and 38 and their respective dependent claims under 35 U.S.C. §102(b).

**Rejections Under 35 U.S.C. § 103(a)**

Dependent claims 8, 20, 33 and 41 are rejected under 35 U.S.C. §103(a) as being unpatentable over Burgess.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Applicants respectfully assert that the present invention, as recited in independent claims 1, 14, 26 30 and 38 is patentable over Burgess.

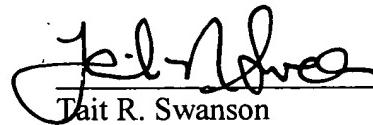
Claim 8 depends on independent claim 1. Claim 20 depends on independent claim 14. Claim 33 depends on independent claim 30. Claim 41 depends on independent claim 38. All of the remaining rejected dependent claims 8, 20, 33 and 41 are believed to be patentable by their dependency on independent claim 1, which is believed to be patentable.

**Conclusion**

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this Application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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